

NATIONAL SURVEY OF THE MINING POPULATION

Request for Office of Management and Budget (OMB) Review and Approval
for a Federally Sponsored Data Collection

Supporting Statement Part A

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Table of Contents

Section A. Justification.....	1
A1. Circumstances Making the Collection of Information Necessary.....	1
A2. Purpose and Use of Information Collection.....	3
A3. Use of Improved Information Technology and Burden Reduction.....	4
A4. Efforts to Identify Duplication and Use of Similar Information.....	5
A5. Impact on Small Businesses or Other Small Entities.....	7
A6. Consequences of Collecting the Information Less Frequently.....	7
A7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5.....	7
A8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency	8
A. Federal Register Notice.....	8
B. Consultation Inside/Outside the Agency.....	8
A9. Explanation of Any Payment or Gift to Respondents.....	9
A10. Assurance of Confidentiality Provided to Respondents.....	9
A11. Justification for Sensitive Questions.....	10
A12. Estimates of Annualized Burden Hours and Costs.....	11
A. Estimated Annual Burden Hours.....	11
B. Estimated Annual Burden Cost.....	12
A13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers.....	12
A14. Annualized Cost to the Government.....	12
A15. Explanation for Program Changes or Adjustments.....	13
A16. Plans for Tabulation and Publication and Project Time Schedule.....	13
A17. Reason(s) Display of OMB Expiration Date is Inappropriate.....	15
A18. Exceptions to Certification for Paperwork Reduction Act Submissions.....	15

Section A. Justification

A1. Circumstances Making the Collection of Information Necessary

Surveillance of occupational injuries, illnesses, and exposures has been an integral part of the work of the National Institute for Occupational Safety and Health (NIOSH) since its creation by the Occupational Safety and Health Act in 1970. Surveillance activities at the Pittsburgh Research Laboratory (PRL), a division of NIOSH, are focused on the nation's mining workforce. The Federal Mine Safety & Health Act of 1977, Section 501, enables NIOSH to carry out research relevant to the health and safety of workers in the mining industry (**Appendix A**).

NIOSH maintains mining surveillance activities in Pittsburgh, Pennsylvania, and Spokane, Washington. These surveillance activities make extensive use of data from a number of different national databases. Even though these databases are currently being used for surveillance of the mining population, they are not fully able to meet the surveillance requirements for the mining industry.

The most frequently used databases are those maintained by the Mine Safety and Health Administration (MSHA). MSHA collects information about and maintains several databases related to mining safety and health. Included are databases of reported employment, accidents/injuries/illnesses, hazardous exposures, coal production, mine inspections, violations and citations, etc. Two of the most commonly used databases are the mine operator and contractor address/employment files and the file listing reports of accidents, injuries, and illnesses. Both mine operator and contractor information is released to the public on a quarterly and annual basis (initially as preliminary data and eventually as close-out data), and is available for downloading on the Mine Safety and Health Administration website (<http://www.msha.gov/>). There is approximately a three month lag time for the release of preliminary quarterly data and a six to eight month lag time for the release of close-out year-end data.

Under 30 CFR Part 50, mine operators and independent contractors (whose employees perform certain types of work on mine property) are required to file a *Quarterly Mine Employment and Coal Production Report (MSHA Form 7000-2; OMB Control Number 1219-0007; Approval Expires April 30, 2008)* (**Appendix B**) within 15 days after the end of each calendar quarter. In addition to the number of clean tons of coal produced (coal mines only), this report requests both the total number of employee hours worked and the average number of employees working within each valid operational subunit¹ associated with the mining establishment. Each mining establishment is uniquely identified by its MSHA-assigned Mine ID number.

In the case of contractor companies, employment is also reported for each operational subunit for which employees worked. However, this employment may have occurred at multiple mining

¹ Underground areas; surface areas at underground mines; strip mines, open pit mines, or quarries; auger operations (coal mine only); culm banks or refuse piles (coal mine only); dredging operations; other surface mining (metal/nonmetal mines only); independent shops/yards; preparation plants or mills; office locations.

establishments and thus it is not possible to determine the number of contractor employees working at each specific mining operation. Independent contractor companies are required to file a maximum of two reports for each quarter, one for employment across coal mining operations and another for employment across metal/nonmetal² (MNM) operations. These independent contractor companies are also uniquely identified by an MSHA-assigned Contractor ID number.

In addition to the quarterly employment information reported (i.e., total hours worked, average number of workers, and short tons of clean coal produced) the address/employment file for mine operators includes location and descriptive information about the mining establishment, including the controlling company (owner), mine operator, mine name, state and county locations, operational status, mailing address, and Standard Industrial Classification (SIC) code of the establishment. The additional information provided by contractor companies is limited to the contractor company name, operational status (active or inactive), mailing address, and whether the reported employment is for coal or MNM operations.

Also under 30 CFR Part 50, mine operators and independent contractors whose employees perform certain types of work on mine property are required to file a *Mine Accident, Injury, and Illness Report (MSHA Form 7000-1; OMB Control Number 1219-0007; Approval Expires April 30, 2008)* (**Appendix C**) which reports data for injured and ill miners. For certain serious accidents and events (e.g., fatalities) mine operators are required to notify MSHA immediately; for other reportable incidents notification is required within 10 working days after the accident or injury, or 10 working days following the illness diagnosis. Information requested on MSHA Form 7000-1 includes the Mine ID where the incident occurred and the Contractor ID if the incident involved an independent contractor worker. Also requested is information about the individual involved in the incident such as the injured worker's birth date, gender, job title, years of total mining experience, years of experience at the current mine, operational subunit where the incident occurred (e.g., surface, underground, plant/mill), resultant days away from work and/or days of restricted work activity, the source of the injury, body part(s) injured, and a narrative description of the incident.

Analysis of data from the existing MSHA employment and accident/injury/illness databases has been able to meet some, but not all, of the NIOSH surveillance needs. For example, to identify subpopulations in each mining commodity or type of mining operation at risk of adverse health and safety outcomes, NIOSH needs the capability to calculate age-, gender-, and occupation-specific rates of injury, fatalities, and disease. The ability to do so, however, does not currently exist because data on age, gender, and occupation are available for injured or ill workers but not for the entire mining workforce. NIOSH is planning to use the National Survey of the Mining Population to obtain "denominator data" so that Mine Accident, Injury and Illness reports can be evaluated in relation to the population at risk. Additionally, due to the reduced reporting requirements for independent contractors, NIOSH cannot determine the number of contractor employees working separately in metal, nonmetal, stone, or sand and gravel operations. The National Survey of the Mining Population will collect mine-level data on contractor employees to allow NIOSH to determine the quantity of contract labor that mine operators use and the type of work they perform.

² Includes metal, nonmetal, stone, and sand and gravel operations.

The Mine Safety and Health Administration also views this survey as an important contribution to its mission. MSHA has written to NIOSH about the importance of conducting a national survey of this type. A letter from John R. Caylor, former Deputy Assistant Secretary of Labor for Mine Safety and Health to Lewis V. Wade, former Associate Director for Mining, National Institute for Occupational Safety and Health expressed MSHA's support of this survey **(Appendix D)**. Moreover, survey staff had the opportunity to meet and/or talk with members of industry and labor, and both segments of mining have expressed considerable interest in the survey.

To improve its surveillance capability related to the occupational risks in mining, NIOSH/PRL is planning to conduct a national survey of mines and mine employees (Appendix J). The major objectives of the survey will be to: (1) collect basic information about mining operations; (2) establish the demographic and occupational characteristics of mine operator employees for each major mining sector (i.e., coal, metal, nonmetal, stone, and sand and gravel); and (3) estimate the number and occupational characteristics of independent contractor employees used by mining operations.

A2. Purpose and Use of Information Collection

The Mine Safety and Health Administration requires that mining operations report quarterly employment, and accidents, injuries, and illnesses. The most important objective of the National Survey of the Mining Population will be to obtain "denominator data" so that Mine Accident, Injury and Illness Reports (MSHA Form 7000-1) can be evaluated in relation to the population at risk. Currently, Form 7000-1 collects data on the mine where the incident occurred (underground, surface, plant/mill), and demographics of the injured or ill miner such as the victim's date of birth, sex, job title, and his/her experience in that job title, at that mine and over all other mines where the victim was employed. The form also documents whether the affected employee is a regular employee or a contractor employee. Quarterly mine employment is collected in MSHA Form 7000-2 for each subunit of the mine, so accident rates can be computed by mine or by work location within the mine and for aggregates of these two variables. However, data on all mine employees by age, sex, job title, and experience are not collected. Consequently, the accident data cannot be fully exploited to study the employee-level correlates of mining accidents. The National Survey of the Mining Population (Appendix J) will collect employee-level data that can be used by NIOSH to create the denominator data needed to construct accident rates for various demographic groups that reflect the population at risk.

The last survey of mine operator employees, the Mining Industry Population Survey (MIPS) was conducted by the U.S. Bureau of Mines in 1986. The mining industry has experienced many changes since the MIPS was conducted and these data are now too outdated to be considered useful for surveillance on the current mining workforce. Another survey objective is to obtain up-to-date, appropriate, and accurate demographic and other job-related characteristics of the U.S. mining workforce. The proposed survey will collect data at both the mine and employee levels to fill this data gap.

Since 1986, the date of the last comparable survey, the use of contract laborers has become commonplace in mines. These laborers may be specialists in a particular field or they may be temporary workers brought in to supplement the existing labor force. Contractors are required to report employment under two categories (all coal locations, and all metal, nonmetal, stone, and sand and gravel locations), rather than for the individual mines where their employees worked during a particular quarter. Another objective of the survey will be to determine the quantity of contract labor that mine operators use (overall and by major mining sector) and the type of work performed.

In response to the Sago Mine disaster (January 2006) and other recent fatalities in West Virginia and Kentucky coal mines, there has been a renewed focus on mine safety and communication issues. To be able to provide timely information in this area, NIOSH will collect additional mine-level data that will provide a valuable picture of the communication and safety systems currently used by the U.S. mining industry.

A3. Use of Improved Information Technology and Burden Reduction

NIOSH conducted a pilot study (OMB #0920-0633, expiration 3/31/05) to evaluate the recruitment materials, questionnaire, and survey procedures developed for the nation-wide survey of the mining population. This allowed NIOSH to explore the feasibility of developing a web-based version of the questionnaire. The pilot study debriefing interview contained several questions to determine whether the mine has access to the Internet, and how convenient this would be for the completion of the questionnaire. The majority of respondents indicated that an Internet connection was available at their mine and more than 50 % reported preferring an electronic response option. Thus, for the National Survey of the Mining Population a web-based survey will be available. The web site, hosted by the survey contractor will be readily accessible for data input 24 hours a day during the data collection period.

Because small mines, such as sand and gravel operations, may not have access to the Internet a multi-modal data collection plan is required. The survey packet that will be mailed to all sampled mines will contain a paper version of the questionnaire and instructions for accessing the web site and completing the questionnaire electronically.

To minimize the employee-level questionnaire burden, each mine will only be asked to provide data for about 20 employees, sampled from the total employees working in the reference week.³ If less than 30 employees worked during the reference week, then the sampled mine will be asked to include all workers in the employee sample. When the number of mine employees working during the reference week is 30 or greater, the mine operator will use sampling instructions included in the employee-level section of the questionnaire to select 15 to 25 employees.

³ The reference week will be a week that is randomly selected from the weeks composing the calendar quarter used to define the temporal element of the target population.

A4. Efforts to Identify Duplication and Use of Similar Information

In 1986 the Bureau of Mines, U.S. Department of the Interior, conducted a survey of mine operator employees -- the Mining Industry Population Survey (MIPS) [Butani and Bartholomew 1988a 1988b]. The purpose of the survey was to collect information about the entire mining workforce to identify high risk groups of workers and determine mine employee characteristics. The unit of analysis for MIPS was the miner, and the survey respondent was the mine operator. The sampling frame used for MIPS consisted of mine establishments listed in the 1985 preliminary release of the MSHA employment files. A two-stage stratified random sampling strategy was used in which mining establishments were selected in the first stage and employees in the second stage. For mining operations employing fewer than 50 workers, all employees were selected. Mine operators at mining establishments with 50 or more employees randomly sampled a given proportion of their employees based on their employment size. For each selected employee, mine operators were asked to provide data on age, gender, race, education, years/months in current job, years/months in current company, years/months in mining, principal operational subunit, principal equipment operated, and job title or occupation. Stratification of the primary sampling units was done by industry (anthracite coal, bituminous coal, metal, stone, sand and gravel, nonmetal), mine type (underground, surface, plant or mill), employment size (1-19, 20-49, 50-99, 100-249, 250-499, 500-999, 1000+), and status code (active, intermittent). The mining industry has experienced many changes in the last 20 years; consequently, the MIPS data are no longer representative of the current mining industry labor force. For instance, independent contractor employees were not covered by the MIPS.

The Current Population Survey (CPS) is a stratified sample survey of the civilian non-institutional population, age 16 and older. The CPS is administered by the Bureau of Labor Statistics (BLS), United States Department of Labor. The final monthly sample size is approximately 50,000 households. This survey is the primary source of information on the labor force characteristics of the U.S. population. Estimates obtained from the CPS include age, gender, race, origin/descent, country of birth, educational attainment, family income, employment hours of work, industry, and occupation. Because the CPS is not specifically designed to collect data on the mining workforce, the resultant information on any mining industry workers who happen to be sampled is not reliable enough to allow generalization to the entire mining population by mining sector. Additionally, the coding of the CPS data does not allow for the differentiation of underground versus surface workers, nor can one differentiate mine operator employees from independent contractor employees working on mine property. The industry and occupational codes used for CPS are not compatible with the coding system used by MSHA in its accident/injury/illness database. Individuals counted in the mining industry under CPS include many administrative and support personnel not captured under MSHA's jurisdiction. On the other hand, MSHA captures many workers excluded from mining under CPS, including workers in haulage and processing facilities. As shown in Table 1, CPS estimates of the number of employees working in the mining industry are different from the numbers derived using MSHA's employment files due to inconsistencies in how workers are classified by industry within each of these data collection systems.

Table 1. Comparison of Number of Employees in Mining Industry by MSHA vs. CPS Estimates

Commodity					
Data Source	Coal	Metal	Nonmetallic Minerals ¹		
			Nonmetal	Stone	Sand & Gravel
MSHA ² (2004)	76,207	28,816	22,749	78,949	43,736
CPS (2004)	86,721	17,209	107,150		

¹ Excluding fuel

² Mine operator employees only

The U.S. Decennial Census (Census 2000) collected information on 281.4 million people. The methodology used in Census 2000 consisted of self-administration of a short and long form. On the short form, a limited number of questions were asked of every person and housing unit in the United States. Information is available on such variables as age, gender, race, and Hispanic or Latino origin. The long form was administered to a sample of the population (1 in 6). Data are provided on both housing and population characteristics (e.g., place of birth, educational attainment, language spoken at home and ability to speak English, occupation, and industry). The industry classification for Census 2000 is based on the North American Industry Classification System (NAICS). As is the case with the CPS, the Census may also provide different estimates for certain mining commodities (when compared to MSHA employment estimates) due to differences in industry coding and level of specificity. Based on the descriptions of the mining sub-sectors of NAICS, it appears that mining estimates from the Census will also exclude many workers captured by MSHA such as those involved in mine haulage or working in processing facilities. Under NAICS these workers will still be captured under Transportation and Manufacturing. Occupation for Census 2000 is coded using the Standard Occupational Classification (SOC) scheme which is limited in terms of its specificity for mining occupations.

In summary, the 1986 MIPS is now too outdated to be considered useful for surveillance on the current mining workforce. Additionally, the MIPS did not include any information on independent contractor employees. Neither the CPS nor the Census 2000 differentiates between underground and surface workers, and only a limited number of mining occupations are specifically coded. The use of CPS employment estimates for the mining industry provides different coverage, compared to the data collected by MSHA, for certain specific commodities, work locations, and work activities. Due to the lack of up-to-date, appropriate, and accurate information for mine operator and independent contractor employees, it is important that a well-designed national survey be undertaken that will provide demographic and occupational information for the mining population consistent with the population reported to MSHA.

A5. Impact on Small Businesses or Other Small Entities

Small mining operations will be included in the National Survey of the Mining Population. As shown in Table 2, sand and gravel operations tend to be the smallest with an average mine size of six employees. Small mines will be asked to complete the mine-level and employee-level portions of the questionnaire; however, the burden will be minimized for small mining operations because they will report data for fewer employees than the survey average of 20 employees per mine and will not have to sample from their employee roster.

Table 2. Summary of mine-level characteristics by commodity (Source: MSHA 2004)

Mine-level characteristics	Commodity					Total
	Coal	Metal	Nonmetal	Stone	Sand and Gravel	
Number of mines	2,011	251	741	4,401	7,074	14,478
Number of employees	76,207	28,816	22,749	78,949	43,763	250,483
Average employment size	38	115	31	18	6	17
Median employment size	15	16	8	9	4	6

A6. Consequences of Collecting the Information Less Frequently

The data collection for the National Survey of the Mining Population will occur only one time for each sampled mining operation. There are no legal obstacles to reduce the burden.

A7. Special Circumstances Relating to the Guidelines of 5 CFR 1320.5

There are no special circumstances for this data collection. The sample design for the survey will be probability based so that study findings can be used to make inferences about the nation's mines and associated employees for each major mining sector.

A8. Comments in Response to the Federal Register Notice and Efforts to Consult Outside the Agency

A. Federal Register Notice

In accordance with 5 CFR 1320.8(d) a review of the proposed study was sought through a 60-day publication period in the *Federal Register* (April 4, 2006, Vol. 71, No. 64, pages 16787-16788) (**Appendix E**). A request was received from the public for a copy of the data collection plan and the survey materials. No other comments were received in response to the Federal Register Notice.

B. Consultation Inside/Outside the Agency

NIOSH conducted meetings with stakeholders and obtained feedback which has been used as input in the development of the National Survey of the Mining Population. These meetings were conducted over the course of several months in person or via telephone. The stakeholder meetings were held to collect information on the needs for statistical data on the mining population and operational issues that might be encountered during its collection. Prior to conducting the meetings, several items were characterized as discussion points. These included a listing of potential employee and mine level variables, phases of survey implementation, and stratification categories. With respect to survey variables, stakeholders were asked about the utility of the variables and the feasibility of their collection. Ultimately, it became clear that the stakeholders' data needs required collection of data for two distinct units – mines and employees of these mines.

Individuals from the following organizations participated in the stakeholder meetings and consultations:

Agency/Organization	Contact Name	Contact Telephone Number	Dates of Meetings
NIOSH/Pittsburgh Research Laboratory	Jeffery Kohler	412-386-6601	11/08/02 11/21/02 11/22/02
NIOSH/Spokane Research Laboratory	Patrick Coleman	509-354-8065	09/27/02 11/08/02
NIOSH/Division of Respiratory Disease Studies	Michael Attfield	304-285-5737	09/09/02
Mine Safety and Health Administration	George Fesak Jay Mattos	202-693-9750 202-693-9753	08/07/02 09/04/02 03/26/03
United Mine Workers of America	James Weeks (consultant to UMWA)	240-364-6009	12/11/02
National Stone, Sand and Gravel Association	James Sharpe	703-526-1074	11/25/02

Pennsylvania Coal Association	George Ellis	717-236-5901	02/17/03
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A9. Explanation of Any Payment or Gift to Respondents

There will be no payment or gift to respondents.

A10. Assurance of Confidentiality Provided to Respondents

The National Survey of the Mining Population is a survey of mines and their employees. The CDC Privacy Act Officer has reviewed this submission and has determined that the Privacy Act does not apply. The respondent for both population groups will be the health and safety director, or his/her designate, for the sampled mines. While full names of respondents are collected, individuals will be speaking from their roles as mine health and safety directors, and will be providing no personal information about themselves. The name and contact information of the person responding for the mining operation will only be used to facilitate mailing of the survey packet and telephone reminders, as needed. Only the survey contractor, Westat, Incorporated and NIOSH project staff will have access to this information. At the end of the study, hard copy questionnaires containing contact information will be shredded under Westat project staff supervision, and any electronic files containing contact information will be destroyed. In addition, all information about employees will be coded, and only the mine health and safety directors will know their identity. The mine health and safety director will be asked to provide demographic and occupational characteristic data for a sample of mine employees working at the sampled mine during the reference week. The majority of requested employee-level data should be available in personnel or payroll records. The health and safety director will be asked to create a list of all employees working during the reference week and to assign a sequence number to each employee. If less than 30 employees worked in the reference week, the director will be instructed to provide data for all employees. If 30 or more employees worked that week, the director will be asked to use the sampling instructions to determine which employees to include in the employee-level questionnaire. The health and safety director will record the sequence number but not the name of the sampled employees. The survey portion dealing with employee information does not have sensitive data – it is asking only about hours worked, not about accidents or injuries – and the demographics—race, education, etc. – which could be considered sensitive if it were being asked directly of employees – are being copied from existing company records. NIOSH will only be reporting and publishing aggregated data from this survey.

The person(s) completing the questionnaire will be the only one(s) who will be able to positively link this sequence number with a particular employee.

There are issues related to identifiable data for both responding mines and their employees, consequently data safeguards need to be in place. Only authorized project staff of NIOSH and the survey contractor, Westat, will have access to mine names and identifiers. Telephone interviewers and other survey contractor staff will follow written NIOSH procedures for dealing with sensitive information. Completed questionnaires will be kept in an access-restricted area while being processed and stored in a locked file cabinet when not in use. Westat has developed tools and techniques for the exchange of file-based data with outside parties that protect the security, sensitivity, and integrity of the data throughout the transfer process. The Secure Transfer Web Site with FTP, a general-use Westat web site, allows data file transfer through a web browser. This site features user authentication based on accounts and passwords, the ability to limit users to upload-only, down-load only, or bidirectional transfer functions, and the use of data encryption.

Data processing will be done in a password-protected computing environment. For identification purposes, a unique non-identifiable ID number will be created by Westat and assigned to each mine and each employee. This non-identifiable ID, and not the MSHA ID number, will be used on the labels of the hard-copy questionnaire and on the log-in page of the web survey. Additionally, the analysis files prepared by Westat will only contain these non-identifiable IDs. A separate linkage file will be maintained by NIOSH that contains the mine name, MSHA ID number, and the employee sequence number as well as the non-identifiable mine and employee IDs. The linkage file will only be used when the mine name or MSHA ID is needed to interpret the study data and/or to merge data from administrative records into the analysis data file(s). Although the analysis file(s) will not contain names or identifiers, the data must still be considered to be identifiable as the other data items could allow determination of the mines associated with some data records. For this reason, only NIOSH and Westat project staff will be allowed access to these databases, which will be stored in a safe, secure location. A copy of the Westat non-disclosure agreement is provided in **Appendix F**. All Westat employees must comply with this policy, and all project staff have signed the pledge, which is intended to protect project data obtained by Westat from unauthorized use or disclosure. The provision to protect individual data, and all information arising from surveys concerning individual respondents, applies to both persons and organizations from or about whom information is collected.

NIOSH is in the process of requesting an exemption from the Human Subjects Review Board (HSRB) for the National Survey of the Mining Population. This exemption is based on category 2 of the Criteria for exemption [i.e., (2) Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observations of public behavior, unless: (i) information obtained is recorded in such a manner that human subjects can be identified, directly or through identifiers linked to the subjects; and (ii) any disclosure of the human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.]. The HSRB Determination document will be included as **Appendix G**.

A11. Justification for Sensitive Questions

The data collected in this survey will include basic demographic (e.g., age, gender, race/ethnicity, education level) and occupational characteristics (e.g., job title, work location, experience in this job title, total mining experience) for a subset of the operation's mining workforce. The majority of the information sought is not sensitive. Some of this information is already publicly available for injured and ill miners in the MSHA accident/injury/illness database (<http://www.msha.gov/>).

NIOSH is aware that asking a respondent about their ethnicity, race, and highest level of education may be viewed as sensitive. For this survey, the sampled mining operations will provide all survey data. The individual mine operator employees will not be directly surveyed. The race, ethnicity, and education level data are being collected to allow analysis using the common measures which also appear in *MSHA Form 7000-1; OMB Control Number 1219-0007*. The questions found in the "Safety, Communication, and Rescue Measures" section of the questionnaire may be viewed as sensitive by the responding mining operations. These questions deal with the mine's response capacity in emergency situations. Due to the recent mining disasters which occurred at underground coal mines, the U.S. Congress passed the Mine Improvement and New Emergency Response Act of 2006 (MINER Act). Section 6 of the MINER Act charges NIOSH with enhancing "the development of new mine safety technology and technological applications" and expediting "the commercial availability and implementation of such technology in mining environments". Having summary information regarding the currently available mine emergency equipment will be very valuable in assisting the NIOSH Office of Mine Safety and Health to respond to this Congressional mandate.

A12. Estimates of Annualized Burden Hours and Costs

A. Estimated Annual Burden Hours

NIOSH conducted a pilot study for this national survey in the fall of 2004 (OMB No. 0920-0633, expiration 3/31/2005). The pilot study was designed to emulate the main study design in order to evaluate the effectiveness of the recruitment materials, questionnaire, and survey procedures in acquiring complete, high quality data from a sample of 45 mining operations. Nine mines were sampled from each mining sector (i.e., coal, metal, nonmetal, stone, and sand and gravel). Within each mining sector, three "small" mines (1 to 25 employees), three "medium" mines (26 to 75 employees), and three "large" mines (76 to 250 employees) were randomly selected.

Of the 18 mines that submitted completed questionnaires, 15 mines provided information regarding the length of time they required to complete the survey. Gathering materials was the most time-consuming activity with a median time of two hours. Reading the questionnaire was the least time-consuming activity with a median time of 15 minutes. The total median time required to complete the questionnaire varied depending on the size of the mining operation – from one hour for small mines to six hours for large mines.

Based on the stratification and sample size allocation plan developed for the national survey, the majority of the sampled mines will consist of “small” operations (1 to 25 employees). Thus, NIOSH is estimating the average burden for completing the questionnaire to be two hours. This is presented in Table A12-A.

**Table A12-A. Estimated Burden Hours
Based on Pilot Study Data and
Sample Size Allocation Plan**

Respondents	Number of Respondents	Number of Responses per Respondent	Average Burden per Response (in hours)	Total Burden Hours
Responding Eligible Mining Operations	1,648	1	2	3,296

B. Estimated Annual Burden Cost

The estimated burden cost for the mining operations surveyed in this study is shown in Table A12-B. To compute the burden estimates, NIOSH assumes that the completion of the questionnaire will be done by the health and safety director at the sampled mine. NIOSH estimates that a mine health and safety director earns an approximate hourly wage of \$29.00 (based on GS-11/5 = \$59,578 per year).

Table A12-B. Estimated Burden Hours

Respondents	Total Burden Hours	Hourly Wage Rate	Total Respondent Costs
Health & Safety Director	3,296	\$29.00	\$95,584

A13. Estimates of Other Total Annual Cost Burden to Respondents or Record Keepers

There will be no additional cost burden.

A14. Annualized Cost to the Government

A Contractor has been hired to assist NIOSH with the National Survey of the Mining Population. The Contractor's total costs for the coal, metal, nonmetal, stone, and sand and gravel surveys are \$764,652.00. These costs include tasks such as: (1) development of the web questionnaire; (2) sample selection; (3) survey packet preparation and mailout; (4) sample tracking; (5) data receipt and processing; and (6) data entry and delivery. The data analysis will be done by a NIOSH Supervisory Statistician and will require three or four months of fulltime effort. A junior-level NIOSH Statistician will assist with the development of summary tables and graphs. There will be additional costs to NIOSH (not yet determined) for printing the reports and other publications that NIOSH anticipates preparing after completing the analysis of the data captured in this survey.

A15. Explanation for Program Changes or Adjustments

This is a new data collection.

A16. Plans for Tabulation and Publication and Project Time Schedule

A research contractor, Westat, Inc., will be assisting NIOSH with this survey. NIOSH will prepare the commodity-specific sampling frames using MSHA mine employment data files. The frames will contain the MSHA mine ID, mine or plant name and estimated number of employees. Using a probability sampling strategy, the contractor will select the sample of mines for the study. NIOSH will provide the contact information for the sampled mining operations. The contractor will verify the contact information and if necessary, obtain updated information using sources such as directories and MSHA district offices. The contractor will be responsible for the development of the Web questionnaire, the preparation and mail-out of survey packets, recruitment and follow-up, data verification and entry, and the calculation of the sampling weights. NIOSH will perform the analysis of the data using a statistical package that supports the analysis of data from complex sample surveys (e.g., SUDAAN).

NIOSH is planning to publish reports for each mining sector containing the demographic and job characteristics of the miners (e.g., age, gender, job title, years of mining experience) and basic information about the mining operations (e.g., work schedules; number and occupational characteristics of independent contractor employees used by mining operations; and safety, communication, and rescue measures employed by the mines).

The survey data will also be used to calculate denominator data so reported injuries and illnesses can be evaluated in relation to the population at risk. For example, NIOSH has data on injured and ill roof bolter operators, but there is no information on how many roof bolter operators work in the mining industry; thus their overall injury and illness rates cannot be calculated.

In order to capture data from the mining industry that is both timely with respect to the heightened focus on mine safety (given the recent coal mining disasters in West Virginia and Kentucky), and also takes into account the employment fluctuations over the calendar quarters, it

is imperative that this survey be fielded as soon as possible. The Mine Safety and Health Administration reported 72 mining fatalities for 2006, which is a substantial increase over the 58 fatalities that occurred in 2005. The data collected in this survey will help NIOSH to determine which categories of mining operations (e.g., commodity, mine size) and employee occupations (e.g., electrician, shuttle car operator) are at an increased risk for accidents.

As seen in the following chart, for the majority of mining sectors, the 4th quarter is a reasonable time period during which to collect data. Mining employment is often at its lowest during the 1st quarter of the calendar year and NIOSH does not want to delay this survey until April 2007.

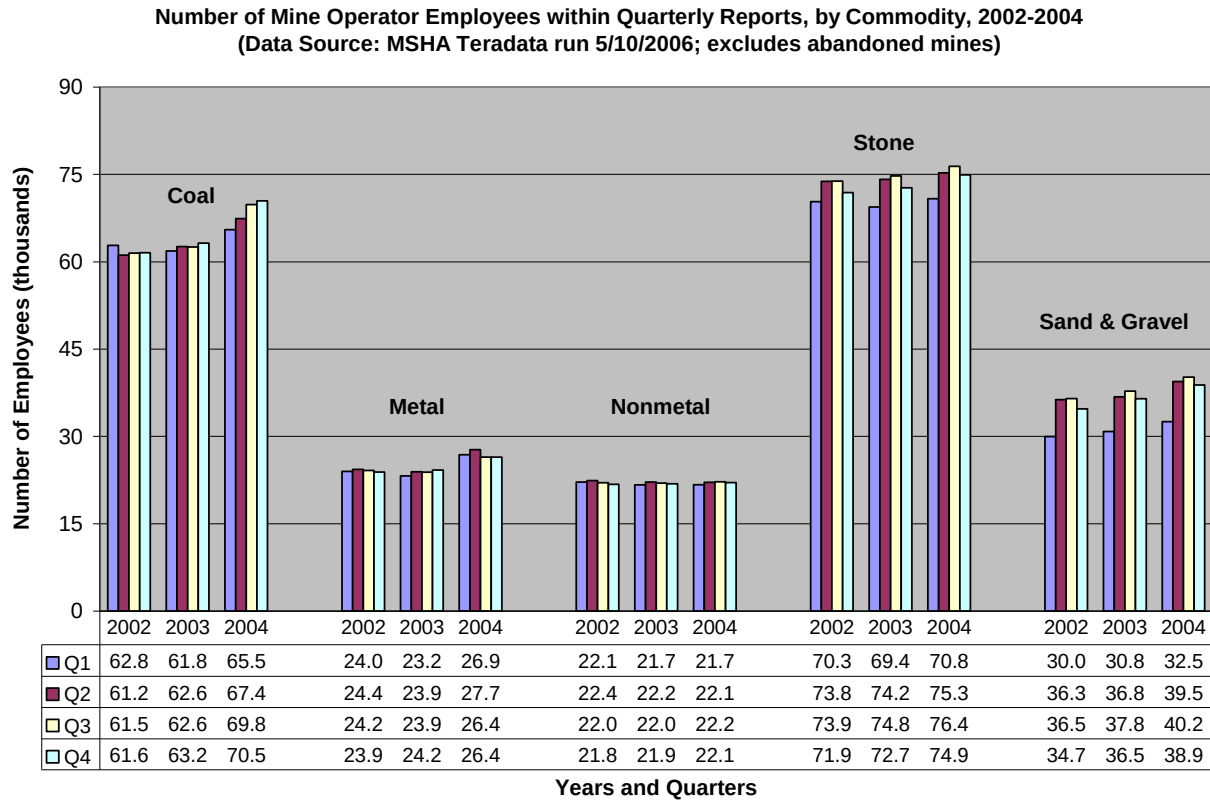


Table A16 presents the proposed time schedule for this project.

Table A16. Survey Time Schedule

Activity	Time Schedule (months after OMB approval)
Prepare Sampling Frames and Select Mining Sector-Specific Samples	1 Month
Verify Contact Information for Sampled Mining Operations	1 Month
Program and Test Web Questionnaire	1 Month
Prepare and Mail Survey Packets	2 Months

Recruitment and Follow-up	2 – 5 Months
Data Collection	2 – 5 Months
Data Receipt and Processing	3 – 7 Months
Data Entry and Verification	4 – 8 Months
Data Analysis	9 – 18 Months
Publications	24 Months

A17. Reason(s) Display of OMB Expiration Date is Inappropriate

There is no request for an expiration date display exemption.

A18. Exceptions to Certification for Paperwork Reduction Act Submissions

There are no exceptions being sought to the certification statement.

References:

Butani SJ, Bartholomew AM [1988a]. Characterization of the 1986 Coal Mining Workforce. U.S. Department of the Interior, U.S. Bureau of Mines, Information Circular #9192.

Butani SJ, Bartholomew AM [1988b]. Characterization of the 1986 Metal and Nonmetal Mining Workforce. U.S. Department of the Interior, U.S. Bureau of Mines, Information Circular #9193.